



Test

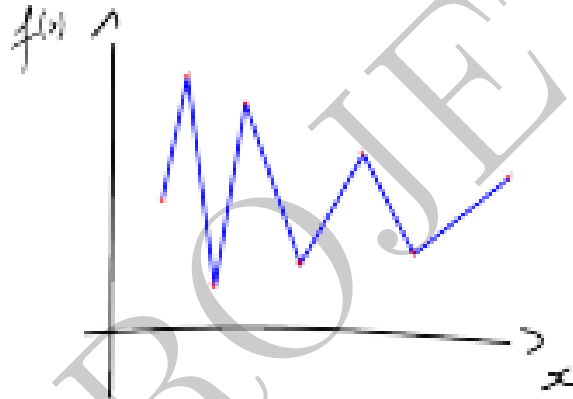
Nom et prénom :

.....

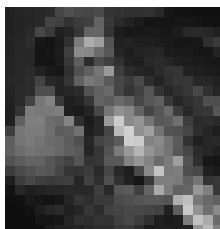
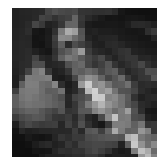
Illustration of `amc2moodle` capabilities. All these questions can be converted *automatically* to `moodle` with the same layout.

MULTIPLE CHOICE TESTS USING AMC LATEX FORMAT

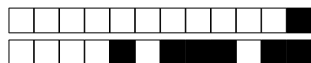
Question 1 On souhaite faire passer *exactement*, par N points donnés, un polynôme de degré **strictement** égal à $N - 1$. Pour trouver les coefficients on doit résoudre un *problème*



- ☐ de moindres carrés
- ☐ de Thelonius Sphere Monk



- ☐ d'interpolation



Question 2 ♣ Quel fruit possède un noyau?

- ☐ La pomme
 ☐ La tomate
 ☐ le Kiwi
☐ Aucune de ces réponses n'est correcte.

Question 3 Test for itemize html rendering,

- first item
- Second item blablabla

test for enumerate html rendering,

1. The first item x^2 with math
2. The second **item** with bold

- ☐ 1. The first item x^2
 2. The second **item**
☐ 1 bullet list and 1 ordered list
 Remarks: tags in item are ignored.

Question 4 ♣ Quels sont les opérations qui donnent un chiffre présent dans le tableau?

12	2	2 ³
Deux	4	

- ☐ 6×6
☐ Avec une équation

$$\int_0^2 x dx$$

- ☐ Ou en C using `alltt` package

```
int s=-2;
for (int i=0;i<4; i++){
s=i*i+s;
}
```

- ☐ Avec une équation matricielle

$$\det \begin{pmatrix} 1 & 2 \\ -1 & 10 \end{pmatrix} = \begin{vmatrix} 1 & 2 \\ -1 & 10 \end{vmatrix} \quad (1)$$

- ☐ $|-10 - 2|$ (math inline and newcommand)

- ☐ la réponse en image

- ☐ Aucune de ces réponses n'est correcte.



Question 5 Among the following persons, which one has ever been a President of the French Republic?

- ☐ Alain Prost ☐ with an image  ☐ Marcel Proust ☐ René Coty

Question 6 ♣ Among the following cities, which ones are French prefectures?

- ☐ Sainte-Menehould
☐ Avignon
☐ Poitiers
☐ *Aucune de ces réponses n'est correcte.*

Question 7 Here is a test for `mhchem-LATEX` package. This package is not yet supported by LaTeXML, thus the rendering is delegated to `mathjax`. To use it, you need to add `mhchem` in the `mathjax` moodle plugin (ask to admin, see details in README file).

A complicated chemical equation $\text{Hg}^{2+} \xrightarrow{\text{I}^-} \text{HgI}_2 \xrightarrow{\text{I}^-} [\text{Hg}^{\text{II}}\text{I}_4]^{2-}$, the same written in math mode : $\text{Hg}^{2+} \xrightarrow{\text{I}^-} \text{HgI}_2 \xrightarrow{\text{I}^-} [\text{Hg}^{\text{II}}\text{I}_4]^{2-}$, combine with other math operator $K = \text{Hg}^{2+} \xrightarrow{\text{I}^-} \text{HgI}_2 \xrightarrow{\text{I}^-} [\text{Hg}^{\text{II}}\text{I}_4]^{2-}$ and finally placed in the equation environment

$$K = \text{Hg}^{2+} \xrightarrow{\text{I}^-} \text{HgI}_2 \xrightarrow{\text{I}^-} [\text{Hg}^{\text{II}}\text{I}_4]^{2-}$$

- ☐ a simpler one $\text{CO}_2 + \text{C} \longrightarrow 2 \text{CO}$.
☐ Wrong Choice!

Question 8 Combien de fois le programme suivant affiche-t-il "x" ?

```
for (int i = 4; i < 24; ++i)
  for (int j = i + 2; j - 1 > 0; --j)
    puts("x");
```

- | | | | | | | | | | |
|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 | <input type="checkbox"/> 8 | <input type="checkbox"/> 9 |
| <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 | <input type="checkbox"/> 8 | <input type="checkbox"/> 9 |
| <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 | <input type="checkbox"/> 8 | <input type="checkbox"/> 9 |

Question 9 Explain in few words the aim of this course.

☐ OK ☐ F

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Question 10 Provide a description of a problem that can be common to several questions. It is useful to define notation, pictures



equations $\int_0^1 x dx = 0. \dots$ Since, it is not a *real* question, the **choices** environment is not provided. In this case, the question will be converted by **amc2moodle** into **moodle description** question type. To use it in AMC, do not forget to use **QuestionIndicative** to tell AMC not to count points for this question (with a 0-point scoring).

Question 11

What is the **area** of rectangle of height 2.183840093288496178 and width 1.000070437323334825 ? We recall that $\pi = 3.141592653589793238$.

Check for random labels : 0.346558480706812393

Check nested expression : $2.933884413848519720 = ? 2.933884413848519720$

Check for power and trigo : $\sin(0.5)^2 + \cos(0.5)^2 = 0.99999999999999985 = ? 1$

☐ 2.183993917139258694

☐ 3.183910530611831003

Question 12 ♣ Compute the eigenvalues of the following matrix

$$\begin{pmatrix} x & y \\ y & z \end{pmatrix}, \quad (2)$$

where $x=3.131068949648676880$, $y=1.875836745312361392$ and $z=1.188178464857944500$.

☐ -4.319247414506621380

☐ 0.047167943447435243

☐ 17.849877416146659003

☐ 4.272079471059186137

☐ 4.319247414506621380

☐ Aucune de ces réponses n'est correcte.



Question 13 Among the following shape, where is the circle

